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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/607,515
Filing Date: June 26, 2003
Appellant(s): KIRKLAND, DUSTIN

Gerald H. Glanzman
Reg. No. 25,035
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 26 December 2007 appealing from the Office action mailed 19 July 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,167,513	INOUE et al.	12-2000
6,452,910	VIJ et al.	09-2002
5,572,528	SHUEN	11-1996

2002/0198011 SIMBIRSKI 12-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-9, 12-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,167,513 to Inoue et al., hereinafter Inoue, in view of U.S. 6,452,910 to Vij et al., hereinafter Vij.

As per claims 1, 8, and 15, Inoue teaches a data processing configuration, a method, and a bridge suitable for use in a data processing network, comprising:

a data processing system (Figures 3 [blocks 5a, 5b], 6 [blocks 2, 5a], 13 [blocks 23], 22 [blocks 2, 5a], 25 [blocks 2, 3 5a], 43 [blocks 2-1, 5a], column 20, lines 35-44, i.e. stationary or mobile node);

a network communication device of the data processing system for enabling the data processing system to communicate with a wired network, the communication device including a wired port for receiving a network cable connector (Figures 3 [blocks 1a, 1b], 6 [blocks 1a, 1b], 13 [blocks 1], 22 [blocks 1a, 1b], 25 [blocks 1a, 1b], i.e. the stationary or mobile computers connected to the gateways as illustrated);

a first bridge device having a cable connector for insertion in the wired port of the network communication device (Figures 6 [block 4a], 13 [block 4, GWa], 22 [block 4a], 25 [block 4a], 43 [block 4a]), wherein the first bridge device further includes an encryption unit for encrypting information received from the data processing system according to a predetermined encryption algorithm and a transmitter for transmitting the encrypted information (Figures 6, 13,

22, 25, 43, column 20, lines 35-44, i.e. GWa converts it into the encryption/end-to-end authentication format, encryption link format from GW0 (or GWa) to GW1 (or GWb)); and

a second bridge device having a cable connector for insertion into a port of the wired network (Figures 6 [block 4b], 13 [block 4, GWb], 22 [block 4b], 25 [block 4b], 43 [block 4b]), wherein the second bridge device includes a receiver for receiving encrypted information transmitted from the first bridge device, and a decryption unit for decrypting received encrypted information according to a decryption algorithm that is matched to the encryption algorithm of the first bridge device (Figures 6, 13, 22, 25, 43, column 20, lines 35-44, i.e. GWb converts the received encryption authentication format to IP format) wherein the first and second bridge devices communicate (column 13, lines 27-32, i.e. master key shared between the packet encryption gateways).

Inoue does not teach where the bridges communicate wirelessly.

Vij teaches wirelessly connecting a personal area network and a local area network (column 1, lines 7-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the bridges communicate wirelessly, since Vij states at column 2, lines 34-38 that using wireless bridges allows for the seamless integration of wireless network links while still being flexible to adapt to different wireless technologies (column 1, lines 66-67).

Regarding claims 2, 12, and 16, Inoue teaches wherein the encryption unit of the first bridge device is configured to format the encrypted information according to a protocol prior to

transmitting the encrypted information (Figures 4D, 10-12, column 12, line 6 to column 13, line 20, column 20, lines 35-44, i.e. GWa converts it into the encryption/end-to-end authentication format, encryption link format from GW0 (or GWa) to GW1 (or GWb)) and wherein the decryption unit of the second wireless bridge device is configured to un-format the protocol prior to decrypting the received encrypted information (column 20, lines 35-44, i.e. GWb converts the received encryption authentication format to IP format).

With regards to claim 3, Inoue teaches first and second bridge devices and the Examiner takes Office Notice that each include an internal power supply for supplying power to the first and second bridge devices respectively, since without a power supply the bridging devices would not work.

With regards to claims 4, 14, and 18, Inoue teaches wherein the first wireless bridge device further includes means for receiving and decrypting information transmitted by the second wireless bridge device, and wherein the second wireless bridge device includes means for encrypting network packets and transmitting the encrypted packets (Figure 43, column 20, lines 35-44). Figure 43 illustrates that the steps disclosed at column 20, lines 35-44 can be reversed by showing the encryption link authentication format arrow going from GW1 to GW0.

Regarding claims 5 and 19, Inoue teaches wherein the encryption algorithm is based on an encryption key common to and embedded in the first and second bridge devices (column 13, lines 26-32).

With regards to claims 6 and 20, Vij teaches wherein the encryption key is at least 128 bits (column 11, lines 13-19).

Regarding claim 7, at least figures 6, 13, 22, 25, and 43 of Inoue clearly show the first (GW1 or GWa) and the second bridge (GW2 or GWb) networked to at least the stationary computer or the mobile computer or both. **Newton's Telecom Dictionary**, hereinafter Newton, states that Ethernet is a local area network standard used for connecting computers, printers, workstations, etc. Newton also states that the first personal computer with Ethernet capabilities was shipped by 3Com on 29 September 1982. Newton states that network interface cards are solely used to connect a workstation to a LAN. Finally, Newton discloses that to connect to a local area network one must use a twisted pair RJ-45 cable. Therefore, since Inoue illustrates the gateways networked to computers, he discloses wherein the first and second bridge device connectors are RJ-45 compliant connectors and wherein the network communication device comprises an Ethernet compliant network interface card of the data processing device.

Regarding claim 9, Inoue teaches wherein the first bridge device is configured to connect to a network interface card (NIC) of a data processing system (figures 6, 13, 22, 25, and 43) by showing that the gateways are networked to the computers disclosed in Inoue. As discussed above, the sole purpose of a network interface card is to connect a workstation to a local area network. With regards to claim 13, Vij teaches wherein the wireless protocol is selected from an IEEE 802.11 protocol and a short range wireless protocol (column 2, lines 11-14).

(10) Response to Argument

The Appellant argues on pages 12-16, with respect to independent claims 1, 8, and 15, that the cited prior art references do not teach wherein the first and second wireless bridge devices communicate exclusively with each other in a wireless manner. The Examiner disagrees with this assertion. Inoue teaches that the gateways communicate with each other via encrypted communications, see figures 6, 13-16, and 22 for examples. The Examiner further cited column 13, lines 26-32 of Inoue, which states

> The master key to be shared between the two data packet encryption gateways or between the data packet encryption gateway and the mobile computer can be generated by the exchange of a secret key or the derivation using a public key and a secret key (such as the Diffie-Hellman method), for example. (Emphasis added)

The Examiner holds that the key shared between the two data packet encryption gateways excludes other gateways from partaking in the communication session due to the fact that the data exchanged between the two gateways is encrypted and can only be decrypted by either one of the two gateway devices; furthermore, based on the disclosure of Inoue, each gateway pair would have its one unique key for encrypted communication. This interpretation of the claim language and the corresponding application of prior art is based on page 6, line 25 to page 7, line 2 of the Appellant's specification, which states

"Thus, the wireless bridge devices in a device pair 232A/232B are designed to communicate with each other exclusively. In one embodiment, the encryption/decryption keys 352/362 in are static and physically encoded or burned into encode and decode units 340 and 342. In other embodiments, the wireless bridge pair **232A** / **232B** alters the encryption keys in use from time to time either automatically or upon request. In such embodiments, a strong authentication algorithm verifies after each key exchange that the bridge pair **232A** / **232B** is capable of communicating with each other at all times."

Since the Appellant's specification includes an embodiment in which the wireless bridge pairs establish exclusive communications by generating a shared key via a key exchange and Inoue teaches this at least on column 13, lines 26-32, the rejection of independent claims 1, 8, and 15 is proper and should be sustained.

As noted in both Office Actions, Inoue does not teach wherein the bridges communicate wirelessly. The Examiner relied on Vij to provide a teaching for wireless communications. The Examiner held that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the bridges communicate wirelessly, since Vij states at column 2, lines 34-38 that using wireless bridges allows for the seamless integration of wireless network links while still being flexible to adapt to different technologies (column 1, lines 66-67).

The Appellant argues in the last paragraph on page 12 that Inoue teaches that the master key can be communicated from the mobile computer to some other network computer, yet fails to provide any support from Inoue for this allegation. Furthermore it appears that the Appellant is arguing an alternative embodiment other than the one applied by the Examiner. The Appellant is reminded that patents are relevant as prior art for all that they contain. See MPEP § 2123. Just because Inoue teaches an alternative embodiment that includes a mobile device that allegedly distributes the master key does not discount the teachings in figures 6, 13-16, and 22 of the nodes communicating through gateways engaged in an exclusive encrypted communication session with one another.

Appellant's arguments regarding claims 2-7, 9, 12-14, 16, and 18-20 amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The Appellant argues

that the abovementioned claims are allowable due to their dependency on independent claims 1, 8, and 15, respectively. Since the Examiner has shown that the rejection of the independent claims is proper, the rejection of claims 2-7, 9, 12-14, 16, and 18-20 is also proper and should be maintained.

With respect to claim 3, the Appellant argues that the Examiner's assumption regarding the internal power supply of the bridging devices is incorrect. The Appellant further argues that neither Inoue nor Vij disclose wherein the bridging devices "each include an internal power supply for supplying power to the first and second wireless bridge devices." The Examiner disagrees. Figure 1 of Vij illustrates a layout drawing of a bridge apparatus (column 2, lines 54-55). Figure 1 of Vij clearly shows the "Switched Power Supply" internal to the bridging device. The Specification sates that the power source can be implemented as a battery or a DC adapter integrated into the corresponding wireless bridge (page 7, lines 6-7). Since Vij shows an internal power supply in Figure 1, the Examiner's Official Notice has been supported and the rejection is proper and should be maintained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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